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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,737

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Rafi Herzog

31781

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67801

7590

01/06/2010

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EXAMINER

DUONG, THOI V

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/577,737	<b>Applicant(s)</b> HERZOG ET AL.	
	<b>Examiner</b> THOI V. DUONG	<b>Art Unit</b> 2871	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 81-100 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 81-100 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/31/07, 8/8/08</u>   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This office action is in response to the Preliminary Amendment filed May 02, 2006.

Accordingly, claims 1-80 were cancelled, and new claims 81-100 were added. Currently, claims 81-100 are pending in this application.

### ***Specification***

2. The abstract of the disclosure is objected to because it contains more than 150 words in two paragraphs. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 81-85, 87, 92 and 99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hussey (US 5,264,877) in view of Dillon (US 4,715,702).

Re claim 81, as shown in Fig. 2, Hussey discloses a liquid-crystal eyeglass system, comprising:

an eyeglass frame 12;

at least one liquid-crystal lens 14, arranged in the frame and adapted for variable opacity; and

a control system 22 for controlling the level of the variable opacity of the at least one liquid-crystal lens 14 (col. 2, line 45 through col. 3, line 25).

However, Hussey does not disclose a reflective coating on an exterior side of the at least one liquid-crystal lens, for providing the at least one liquid-crystal lens with substantially invariant exterior appearance, under different levels of the variable opacity.

As shown in Figs. 1, 2 and 3A-3D (see also Fig. 4), Dillon discloses a pair of decorative sunglasses 10 comprises lenses 14 of a laminated structure (reflective coating) in which element 18 is coated with a reflective material, wherein each lens bears a decorative pattern 15 which is readily apparent to a viewer not wearing the sunglasses (col. 3, line 10 through col. 4, line 12). Fig. 6 of Dillon shows a decorative sunshield 50 which is readily mounted over eyeglasses (col. 5, lines 49-54).

Accordingly, the lens provides a substantially invariant exterior appearance of the decorative pattern as seen by the viewer.

Thus, as taught by Dillon, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a reflective coating on an exterior

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side of the at least one liquid-crystal lens in order to produce a decorative pattern without distraction or impairment of vision for the wearer (col. 3, lines 15-19).

With the modification, it is also obvious that the reflective coating provides the at least one liquid-crystal lens with substantially invariant exterior appearance, under different levels of the variable opacity since the performance of the reflective coating is not dependent on the liquid-crystal lens.

Re claim 82, Hussey as modified in view of Dillon further discloses that the liquid-crystal eyeglass system further includes a second lens, wherein both the at least one liquid-crystal lens and the second lens have reflective coatings on their exterior sides, for providing the at least one liquid-crystal lens and the second lens with substantially identical exterior appearance.

Re claim 84, as shown in Fig. 2, Hussey discloses a second liquid-crystal lens<sup>16</sup>, arranged in the frame 12 and adapted for variable opacity, wherein each of the at least one 14 and the second liquid-crystal lenses 16 is independently controlled by the control system 22 (col. 3, lines 32-36 and 60-65).

Re claims 83 and 85, Hussey discloses that the lenses of the eyeglass system are configured for corrective vision (col. 1, lines 18-31; and col. 2, lines 23-32 and 45-55).

Re claim 87, it is well known in the art that a fashionable designer's brand name is printed on the eyeglass system for commercial purpose.

Re claim 92, Hussey discloses that said variable opacity has two levels, transparent and opaque (col. 2, lines 45-55).

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Re claim 99, as shown above, Hussey as modified in view of Dillon discloses a method of eye treatment, comprising:

providing a liquid-crystal eyeglass system, comprising:

an eyeglass frame;

at least one liquid-crystal lens, adapted for variable opacity, arranged in said frame;

a reflective coating on an exterior side of said at least one liquid-crystal lens, for providing said lens with substantially invariant exterior appearance, under different levels of said variable opacity; and

a control system for controlling the level of said variable opacity of said at least one liquid-crystal lens; and

varying the level of said variable opacity of said at least one liquid-crystal lens, while maintaining its exterior appearance substantially unchanged.

5. Claims 86 and 93-95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hussey (US 5,264,877) in view of Dillon (US 4,715,702) as applied to claims 81-85, 87, 92 and 99 above, and further in view of Grupp (US 5,608,567).

Re claim 86, Hussey as modified in view of Dillon does not disclose that the liquid-crystal eyeglass system is selectively operative also as sunglasses.

As shown in Figs. 1 and 2, Grupp discloses a pair of variable transparency liquid crystal glasses being operative as sunglasses or medical glasses (col. 1, lines 10-15).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further have the liquid-crystal eyeglass system of

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Hussey being operative as sunglasses as taught by Grupp in order to protect the sight of the wearer against ambient light of strong intensity (col. 3, lines 13-15).

Re claim 93, as shown in Fig. 2, Grupp discloses a voltage regulator 18 (control circuit) being coupled to the lenses 4, for varying a level of said variable opacity (degree of absorption of the cells) by varying a voltage input (col. 2, lines 15-22 and col. 3, lines 39-62).

Re claim 94, Grupp discloses that the level of said variable opacity is varied with the intensity of ambient light. Accordingly, it is obvious that the level of said variable opacity may be varied gradually with the level of the ambient light (col. 3, lines 39-62).

Re claim 95, the eyeglass system of Grupp further includes a light sensor 22 for sensing the amount of ambient light, and the level of said variable opacity is increased responsive to the amount of ambient light (col. 3, lines 39-62). With the modification, it is obvious that when occlusion is gray-level occlusion, the level of gray of said variable opacity is increased responsive to the amount of ambient light.

6. Claims 81-85, 87-90, 92, 96, 97 and 99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hay et al. (Hay, US 6,511,175 B2) in view of Dillon (US 4,715,702).

Re claim 81, as shown in Fig. 1, Hay discloses a liquid-crystal eyeglass system, comprising:

- an eyeglass frame (not shown);

- at least one liquid-crystal lens 10, arranged in the frame and adapted for variable opacity; and

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a control system 22 for controlling the level of the variable opacity of the at least one liquid-crystal lens 10 (col. 2, line 48 through col. 3, line 54).

Although the eyeglass frame is not shown, it is obvious that the liquid-crystal eyeglass system comprising the eyeglass frame for holding the lens.

However, Hay does not disclose a reflective coating on an exterior side of the at least one liquid-crystal lens, for providing the at least one liquid-crystal lens with substantially invariant exterior appearance, under different levels of the variable opacity.

As shown in Figs. 1, 2 and 3A-3D (see also Fig. 4), Dillon discloses a pair of decorative sunglasses 10 comprises lenses 14 of a laminated structure (reflective coating) in which element 18 is coated with a reflective material, wherein each lens bears a decorative pattern 15 which is readily apparent to a viewer not wearing the sunglasses (col. 3, line 10 through col. 4, line 12). Fig. 6 of Dillon shows a decorative sunshield 50 which is readily mounted over eyeglasses (col. 5, lines 49-54).

Accordingly, the lens provides a substantially invariant exterior appearance of the decorative pattern as seen by the viewer.

Thus, as taught by Dillon, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a reflective coating on an exterior side of the at least one liquid-crystal lens in order to produce a decorative pattern without distraction or impairment of vision for the wearer (col. 3, lines 15-19).

With the modification, it is also obvious that the reflective coating provides the at least one liquid-crystal lens with substantially invariant exterior appearance, under



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different levels of the variable opacity since the performance of the reflective coating is not dependent on the liquid-crystal lens.

Re claim 82, as shown in Fig. 1, Hay (as modified in view of Dillon) further discloses that the liquid-crystal eyeglass system further includes a second lens 12, wherein both the at least one liquid-crystal lens 10 and the second lens 12 have reflective coatings on their exterior sides, for providing the at least one liquid-crystal lens and the second lens with substantially identical exterior appearance.

Re claim 84, as shown in Fig. 1, Hay discloses a second liquid-crystal lens 12, arranged in the frame and adapted for variable opacity, wherein each of the at least one 10 and the second liquid-crystal lenses 12 is independently controlled by the control system 22, 24 (col. 3, lines 21-54).

Re claims 83 and 85, Hay discloses that the lenses of the eyeglass system are configured for corrective vision (col. 1, lines 8-12 and col. 2, lines 57-60).

Re claim 87, it is well known in the art that a fashionable designer's brand name is printed on the eyeglass system for commercial purpose.

Re claim 88, Hay discloses at least one sensor, coupled to the control system, for detecting ocular misalignment (col. 4, lines 4-7). Accordingly, it is obvious that the sensor also senses that the liquid-crystal eyeglass system is worn by a user.

Re claim 89, the eyeglass system of Hay further includes:

a timing device (timer), coupled to the at least one sensor and to the control system, for indicating a timing parameter related to the wearing of the liquid-crystal eyeglass system by the user, the timing parameter being selected from the group

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consisting of: a date, a time, a duration of the occlusion-and-exercising session on that date, and a combination thereof; and

a computerized implement, adapted to store the timing parameter (col. 1, line 63 through col. 2, line 20; col. 3, line 55 through col. 4, line 40; col. 5, lines 13-17; and col. 5, line 60 through col. 6, line 18).

Re claim 90, said computerized implement of Hay is further adapted for at least one action selected from the group consisting of: providing feedback regarding compliance, reminding the user to comply, alerting the user to an upcoming therapeutic procedure, and a combination thereof (col. 1, line 63 through col. 2, line 7; and col. 4, lines 33-40).

Re claim 92, Hay discloses that said variable opacity has two levels, transparent and opaque (col. 3, lines 21-54).

Re claim 96, as shown in Fig. 1, Hay discloses a pair of eyeglasses comprising the LCD lenses driven by variable frequency pulse generators 14 and 16 for varying a level of variable opacity by varying a pulse frequency (col. 3, lines 21-40).

Re claim 97, Hay discloses that the pulse frequencies are adjustable from 0 to 10,000 Hz and the LCD cells become increasing opaque with increasing frequency (col. 3, lines 21-35). Accordingly, it is obvious that the level of said variable opacity may be varied gradually.

Re claim 99, as shown above in claim 81, Hay as modified in view of Dillon discloses a method of eye treatment, comprising:

providing a liquid-crystal eyeglass system, comprising:

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an eyeglass frame;

at least one liquid-crystal lens, adapted for variable opacity, arranged in said frame;

a reflective coating on an exterior side of said at least one liquid-crystal lens, for providing said lens with substantially invariant exterior appearance, under different levels of said variable opacity; and

a control system for controlling the level of said variable opacity of said at least one liquid-crystal lens; and

varying the level of said variable opacity of said at least one liquid-crystal lens, while maintaining its exterior appearance substantially unchanged.

7. Claim 91 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hay et al. (Hay, US 6,511,175 B2) in view of Dillon (US 4,715,702) as applied to claims 81-85, 87-90, 92, 96, 97 and 99 above, and further in view of Nishitani et al. (Nishitani, US 7,183,480 B2).

Hay discloses that said computerized implement is designed as a video game, cartoon, or similar video experience adapted for at least one action selected from the group consisting of: providing feedback to the user regarding compliance, in a playful manner, reminding the user to comply, in a playful manner, alerting the user to an upcoming therapeutic procedure, in a playful manner, and a combination thereof (col. 5, line 60 through col. 6, line 18).

However, said computerized implement of Hay is not designed as a toy.

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As shown in Fig. 57, Nishitani discloses a computerized implement comprises light-emitting toys 121 having a cable antenna in order to perform a communication with a host personal computer 103, which analyzes and judges the data received from the toys 121, and transmits the judged results back to the respective toys 121 (col. 80, line 56 through col. 81, line 25).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the liquid-crystal eyeglass system of Hay with the teaching of Nishitani by having the computerized implement designed as a toy in order to provide full of amusement capability (during eye treatment) (col. 84, lines 54-66).

8. Claims 86 and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hay et al. (Hay, US 6,511,175 B2) in view of Dillon (US 4,715,702) as applied to claims 81-85, 87-90, 92, 96, 97 and 99 above, and further in view of Grupp (US 5,608,567).

Re claim 86, Hay as modified in view of Dillon does not disclose that the liquid-crystal eyeglass system is selectively operative also as sunglasses.

As shown in Figs. 1 and 2, Grupp discloses a pair of variable transparency liquid crystal glasses being operative as sunglasses or medical glasses (col. 1, lines 10-15).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further have the liquid-crystal eyeglass system of Hay being selectively operative as sunglasses as taught by Grupp in order to protect the sight of the wearer against ambient light of strong intensity (col. 3, lines 13-15).

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Re claim 98, the eyeglass system of Grupp further includes a light sensor 22 for sensing the amount of ambient light, and the level of said variable opacity is increased responsive to the amount of ambient light (col. 3, lines 39-62). Accordingly, with the modification, it is obvious that the level of gray of said variable opacity is increased responsive to the amount of ambient light when occlusion is gray-level occlusion.

9. Claim 100 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hussey (US 5,264,877) in view of Thomas et al. (Thomas, US 2006/0003803 A1).

As shown in Fig. 2, Hussey discloses a method of eye treatment, comprising: providing a liquid-crystal eyeglass system, which comprises:

- an eyeglass frame 12;

- at least one liquid-crystal lens 14, arranged in the frame and adapted for variable opacity; and

- a control system 22 for controlling the level of the variable opacity of the at least one liquid-crystal lens 14 (col. 2, line 45 through col. 3, line 25).

However, Hussey does not disclose a sensor, arranged on said liquid-crystal eyeglass system, for automatically sensing when said liquid-crystal eyeglass system is worn.

As shown in Figs. 1-3 and 6, Thomas discloses an eyeglass system comprising a sensor arranged on the pair of eyeglasses for sensing physical and/or emotional conditions of the user and communicated in a wireless manner to a base control unit (paragraphs 22, 47-52 and 60). Since the sensor is located in the eyeglass system, it is

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obvious that the step of sensing is automatically performed when said eyeglass system is worn.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of eye treatment of Hussey with the teaching of Thomas by having a sensor arranged on said liquid-crystal eyeglass system, for automatically sensing when said liquid-crystal eyeglass system is worn in order to obtain physical or emotional status of the user of the eyeglass system (paragraph 50).

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thoi V. Duong whose telephone number is (571) 272-2292. The examiner can normally be reached on Monday-Friday from 8:30 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms, can be reached at (571) 272-1787.

/Thoi V. Duong/ - Primary Examiner

January 4, 2010